

EXPLANATORY

AMENDMENTS TO CLAIMS:

1. (currently amended): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a
5 peripheral wall layer covering said grooves, wherein there are stress release portions at least partially ~~in said peripheral wall layer and/or~~ between said peripheral wall layer and said grooves.
2. (new): The ceramic honeycomb structure according to claim 1, which
10 further has stress release portions at least partially in said peripheral wall layer.
- ~~3~~3. (currently amended): The ceramic honeycomb structure according to claim ~~1~~2, wherein said stress release portions are voids provided in said
15 peripheral wall layer such that they are open on a periphery thereof.
- ~~3~~4. (currently amended): The ceramic honeycomb structure according to claim ~~2~~3, wherein the total length of said voids is equal to or larger than the full length of said ceramic honeycomb structure.
- 20 ~~4~~5. (currently amended): The ceramic honeycomb structure according to claim ~~2~~3, wherein voids provided in said peripheral wall layer are in the form of a slit.
- 25 ~~5~~6. (currently amended): The ceramic honeycomb structure according to claim ~~2~~3, wherein voids provided in said peripheral wall layer are cracks in said peripheral wall layer.

67. (currently amended): The ceramic honeycomb structure according to claim 1, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

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78. (currently amended): The ceramic honeycomb structure according to claim 67, wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the number of the total grooves.

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9. (new): The ceramic honeycomb structure according to claim 7, wherein the total length of a contact portion of the grooves with the peripheral wall layer is 95% or less based on the total length of the grooves.

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10. (new): The ceramic honeycomb structure according to claim 2, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

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11. (new): The ceramic honeycomb structure according to claim 10, wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the number of the total grooves.

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12. (currently amended): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, wherein the thermal expansion coefficient of said peripheral wall layer is smaller than those of said cell walls

in a radial direction,

wherein said peripheral wall layer has a composition comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide matrix and said amorphous silica has a thermal expansion coefficient of $10.0 \times 10^{-7}/^{\circ}\text{C}$ or less.

913. (currently amended): The ceramic honeycomb structure according to claim 812, comprising stress release portions at least partially ~~in said peripheral wall layer and/or between said peripheral wall layer and said~~ grooves.

Claims 10-13: Canceled.

14. (currently amended): The ceramic honeycomb structure according to claim 913, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

15. (previously presented): The ceramic honeycomb structure according to claim 14, wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the number of the total grooves.

16. (new): The ceramic honeycomb structure according to claim 14, wherein the total length of a contact portion of the grooves with the peripheral wall layer is 95% or less based on the total length of the grooves.

~~16~~17. (currently amended): A ceramic honeycomb structure comprising a

ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, said ceramic honeycomb body being obtained by removing a peripheral wall and nearby cell walls before firing.

18. (new): The ceramic honeycomb structure according to claim 17, wherein said peripheral wall layer has a composition comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide matrix and said amorphous silica has a thermal expansion coefficient of $10.0 \times 10^{-7}/^{\circ}\text{C}$ or less.

19. (new): The ceramic honeycomb structure according to claim 17, wherein there are stress release portions at least partially between said peripheral wall layer and said grooves.

20. (new): The ceramic honeycomb structure according to claim 19, which further has stress release portions at least partially in said peripheral wall layer.

~~17~~21. (currently amended): The ceramic honeycomb structure according to claim 1, wherein said peripheral wall layer is formed before or after firing said ceramic honeycomb body.

~~18~~22. (currently amended): The ceramic honeycomb structure according to claim ~~17~~21, wherein said ceramic honeycomb structure has an isostatic strength of 1.5 MPa or more.

23. (new): A particulates-capturing filter using a ceramic honeycomb structure according to claim 1.

5 24. (new): A particulates-capturing filter using a ceramic honeycomb structure according to claim 7.

~~19~~25. (currently amended): The ceramic honeycomb structure according to any one of claims 1 to ~~18~~24, wherein said cell walls of said ceramic
10 honeycomb structure have a porosity of 50 to 80% and an average pore size of 10 to 50 μm .

~~20~~26. (currently amended): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell
15 walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, wherein said peripheral wall layer is made of a mixture comprising amorphous silica particles and an amorphous oxide matrix, and wherein said amorphous oxide matrix is formed from colloidal silica and/or colloidal alumina, and
20 wherein said peripheral wall layer has a composition comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide matrix and said amorphous silica has a thermal expansion coefficient of $10.0 \times 10^{-7}/^{\circ}\text{C}$ or less.

25 ~~21.~~ (canceled). ~~The ceramic honeycomb structure according to claim 20, wherein said amorphous oxide matrix is formed from colloidal silica and/or colloidal alumina.~~

22. (canceled). ~~The ceramic honeycomb structure according to claim 20,~~
~~wherein said peripheral wall layer has a composition comprising 100 parts by~~
~~mass of amorphous silica particles and 2 to 35 parts by mass of an amorphous~~
5 ~~oxide matrix.~~

Claims 23-26: Withdrawn.

27. (currently amended): A coating material for forming a peripheral
10 wall layer of a ceramic honeycomb structure, comprising 100 parts by mass of
amorphous silica particles and 2 to 35 parts by mass (on a solid basis) of
colloidal silica and/or colloidal alumina, wherein said amorphous silica has a
thermal expansion coefficient of $10.0 \times 10^{-7}/^{\circ}\text{C}$ or less, an average particle
size of 1 to 100 μm and an aspect ratio of 10 or less.